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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,090

12/09/2005

Hiroshi Shinmen

126256

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25944 7590 08/06/2008

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EXAMINER

NGUYEN, TUYEN T

ART UNIT

PAPER NUMBER

2832

MAIL DATE

DELIVERY MODE

08/06/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/560,090	Applicant(s) SHINMEN ET AL.	
	Examiner TUYEN T. NGUYEN	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, applicant should clarify the “predetermined amount” of magnetic substance in the magnetic resin in order to obtain "predetermined magnetic characteristics." Applicant should also clarify the “predetermined thickness” of the magnetic resin and “predetermined” area of the core being cover by the magnetic resin. It has been held that the functional "whereby" statement does not define any structure and accordingly can not serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957). Applicant should clarify such “adjustment” in order to have “*predetermined leakage inductances*.”

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, as best understood in view of the rejection under 35 USC 112 second paragraph, are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki [US 6,714,111 B2] in view of Saito et al. [JP 2002-141227].

Suzuki discloses an inverter transformer comprising:

- at least one winding unit comprising a bar-shaped magnetic core [23a, 23b], a primary winding [24] and a secondary winding [25a, 25b] wound around the bar-shaped magnetic core;
- an external unit [21] surrounding a transformer body.

Suzuki discloses the instant claimed invention except for a magnetic resin.

Saito et al. discloses a magnetic inductor device comprising:

- a bar-shaped core [11];
- a coil [12] wound about the bar-shaped core;
- a magnetic ferrite resin [13b] formed of resin containing *a predetermined amount of a magnetic substance to thereby obtain predetermined magnetic characteristics* disposed around the coil and the bar-shaped core, wherein the magnetic resin having *a predetermined thickness*; and
- an external unit [13a] surrounding the magnetic resin/the coil and the bar-shaped core, wherein the magnetic resin covering at least one *predetermined portion of the coil*.

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include magnetic resin about the winding unit of Suzuki, as suggested by Saito et al., for the purpose of providing magnetic shielding.

The structure of Suzuki in view of Saito et al., ***when adjusted***, would have *predetermined leakage inductances and influence caused by leakage flux and imposed on components and wires*

Art Unit: 2832

arranged around the inverter transformer is reduced while influence coming from outside and given to magnetic characteristics of the inverter transformer is reduced. [note, these features are functional language.]

Regarding claims 2-3 and 9, the specific arrangement of magnetic resin and the specific magnetic relative permeability would have been an obvious design consideration for the purpose of improving magnetic shielding.

Regarding claims 4-5 and 8, the specific flux density of the external unit, the specific magnetic resistance, the specific material of the external unit would have been an obvious design consideration for the purpose of enhancing magnetic properties.

Regarding claims 6-7, the specific configuration of the external unit would have been an obvious design consideration based on the intended applications/environments use.

Regarding claim 10, iron powder is a known material for use in magnetic device.

Response to Arguments

Applicant's arguments filed 7/16/2008 have been fully considered but they are not persuasive.

Applicant argues that:

Suzuki in view of Saito fail to disclose the magnetic resin having *a predetermined amount of magnetic substance, a predetermined thickness and covering a predetermined area/portion of the coil.*

The examiner disagrees.

Saito discloses disclose the magnetic resin having *a predetermined amount of magnetic substance, a predetermined thickness and covering a predetermined area/portion of the coil.*

The terminology “*predetermined*” does not positively recite any structure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T. NGUYEN whose telephone number is (571)272-1996. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, ELVIN ENAD can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TUYEN T NGUYEN/
Primary Examiner, Art Unit 2832

Application/Control Number: 10/560,090
Art Unit: 2832

Page 6